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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,737	12/07/2001	Atila Alvandpour	884.451US1	2666

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EXAMINER
TRAN, ANH Q

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/010,737	Applicant(s) ALVANDPOUR ET AL.	
	Examiner Anh Q. Tran	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 4/11/03.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (5,610,544) in view of Nunogami (5,136,191).

Regarding claims 1 & 11 Aoki shows a logic unit (Fig. 2) comprising:

A first logic unit (2a) connected to a first supply voltage (Vcc);

A second logic unit (3a) connected to a second supply voltage; and

A voltage-level converter or a logic circuit (6a) including at least one transistor (61, Fig. 3) connected to the second supply voltage. Therefore, Aoki discloses the claimed invention except for teaching that the at least one transistor having a threshold voltage greater than or about equal to the difference between the second supply voltage and the first supply voltage.

However, Nunogami teaches that it is known to modify a pull-up transistor threshold voltage greater than or about equal to the difference between the second supply voltage and the first supply voltage (col. 2, lines 1-4). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the at least one transistor (61, Fig. 3) of Aoki having a threshold voltage

greater than or about equal to the difference between the second supply voltage and the first supply voltage, as taught by Nunogami in order to transfer a signal without troubles.

Regarding claim 2, Aoki disclose the first logic unit comprises a memory unit (ROM, col. 1, line 41).

Regarding claim 3, Aoki disclose the second logic unit comprises an arithmetic unit (inherent limitation since a RAM comprise decoder circuitries)

Regarding claims 4-7, see figure 3.

Claim 9-10, Nunogami shows the voltage-level converter comprises a first inverter (14, Fig. 1) coupled in series to a second inverter (17).

The apparatus described above is applicable to the method claims 23-25.

Claims 8 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (5,610,544) in view of Nunogami (5,136,191) and further view of Tanaka et al 96,249,145).

Aoki in view of Nunogami discloses the claimed invention except for the second logic unit comprises a clock distribution circuit. Tanaka discloses a second logic unit (602, Fig. 14) comprises a clock distribution circuit. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the logic unit (3a) of Aoki having a clock distribution circuit, in order to provide clock distribution signals.

Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (5,610,544) in view of Nunogami (5,136,191), Tanaka et al 96,249,145), Aizaki (5,115,434) and in further view of LaRue et al (5,027,007).

Aoki in view of Nunogami further view of Tanaka disclose the claimed invention except for AND, NAND, OR, NOR, or XOR. LaRue shows the logic circuit (9, Fig. 3) comprises a NOR circuit and LaRue teaches the logic functions (AND, NAND, OR, NOR, or XOR) gates are fundamental logic operations which form by combination logic gate and not gates (col. 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was to made to implement the logic circuit comprises AND, NAND, OR, NOR, or XOR circuit in order to provide logical Boolean function.

Response to Arguments

3. Applicant's arguments filed 4/11/03 have been fully considered but they are not persuasive. Applicant argues that "Note that Fig. 3 of Nunogami (specific evidence of record) includes the transistor of interest embedded in a complex feedback circuit, while Fig. 3 of Aoki (specific evidence of record) shows a two-transistor inverter. How does the transistor of interest embedded in the complex feedback circuit of Nunogami suggest an application to a two-transistor inverter circuit?"

First, the office action rejection was not base on Fig. 3 of Nunogami, but on figure 1 that corresponding to col. 2, lines 1-4.

Second, the converter (14, Fig. 1) of Nunogami is a CMOS inverter and there is no feedback circuit.

Therefore, Applicant's argument has no basis. Furthermore, the office action did rejected claims 23-25 on page 3, line 11.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Q. Tran whose telephone number is 703-306-4507. The examiner can normally be reached on M-TH (7:00-5:30) Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 703-305-3493. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Anh Tran
June 5, 2003